



THE WORLD TRADE CENTER
OF NY & NJ

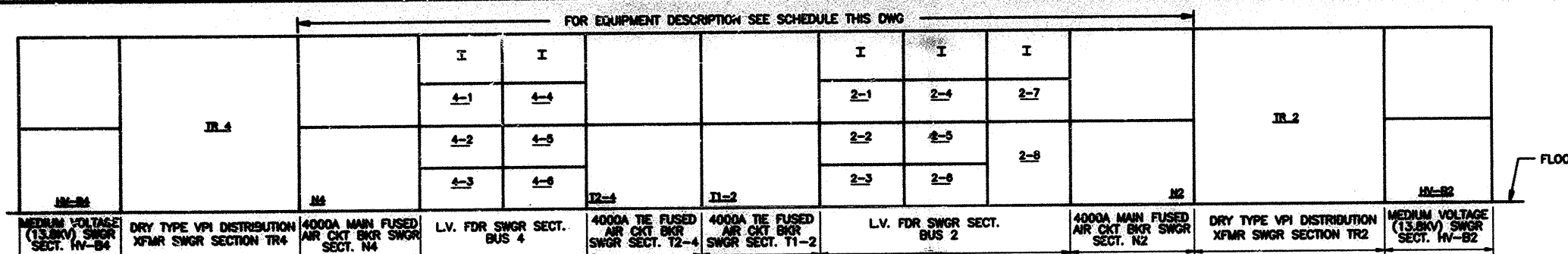
Paul J. Lanning
ENGINEERING PROGRAM MANAGER
WORLD TRADE
Jack B. Buehler
CHIEF ELECTRICAL ENGINEER

NOTES:

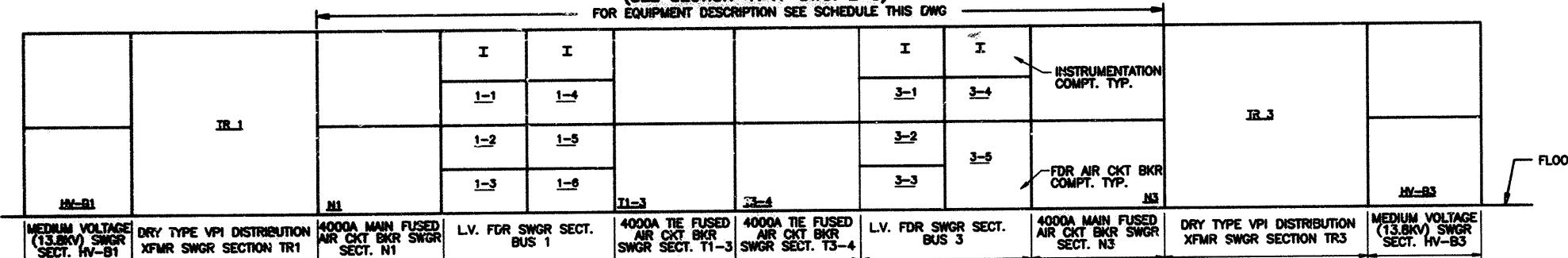
- FOR LEGEND, ABBREVIATIONS AND SUMMARY OF EQUIPMENT SEE DRAWING E-1

SCHEDULE LEGEND

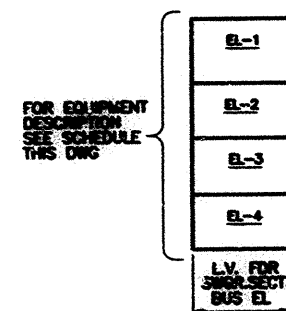
- FUSE - CURRENT LIMITING FUSES, SEE SPECIFICATION.
 - SPACE - SPACE SHALL BE A FULLY EQUIPPED COMPARTMENT WITH BUS, PRIMARY & SECONDARY DISCONNECTS & CRADLE FOR DRAWOUT BREAKERS.
 - PROVIDE LUGS ON BREAKER AND GROUND BUS FOR CONDUCTORS SHOWN IN SCHEDULE ON THIS DRAWING.
 - PROVIDE LUGS ON GROUND BUS AS FOLLOWS:
2000A FRAME = 5-250MCM
1600A FRAME = 3-4/0
800A FRAME = 3-1/0
- X INDICATES REQUIRED
-- NOT REQUIRED



FRONT VIEW
(SEE SECTION "A-A" DWG. E-3)



FRONT VIEW
(SEE SECTION "B-B" DWG. E-3)



FRONT VIEW
(SEE SECTION "E-E" DWG. E-3)

LOW VOLTAGE MAIN, TIE AND FEEDER AIR CIRCUIT BREAKERS SCHEDULE

LOW VOLTAGE MAIN, TIE AND FEEDER AIR CIRCUIT BREAKERS SCHEDULE																
SWITCHGEAR SECTIONS	BKR COMPT. NO.	LOAD DESCRIPTION	CIRCUIT BREAKER CHARACTERISTICS & ACCESSORIES										FEEDER			
			FRAME	TRIP	SOLID STATE TRIP UNIT					FUSE	DESIGNATION	CONDUIT		CONDUCTORS PER CONDUIT		
					L.T.	S.T.	INSTA.	G.F.	U.V. TRIP			MONITORING AND CONTROL FUNCTIONS. SEE SPECS	QTY		SIZE	
MAIN FUSED AIR CKT BKR-SWGR SECT. N1	N1	MAIN AIR CKT. BREAKER 75 E B5 N1	4000A	4000A	X	X	X	X	X	--	--	5000A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 1	1-1	SPARE	1600A	1600A	X	X	X	X	X	X	X	2500A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 1	1-2	(R2a) 480/277V ELEC. CLOS. "E" 77th to 84th FL	1600A	1600A	X	X	X	X	X	X	X	2500A	F-SE75R-2a	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 1	1-3	SPACE	800A	--	--	--	--	--	--	--	--	--	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 1	1-4	(R4) ELEVATOR BUS #EL-75E VIA TRANSFER SWITCH	1600A	1200A	X	X	X	X	X	--	X	2000A	F-SE75R-4	4	3"C	3-350MCM & 1 # 3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 1	1-5	SPARE	1600A	1600A	X	X	X	X	X	X	X	2500A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 1	1-6	PANEL #DP-75E	800A	800A	X	X	X	X	X	X	X	1200A	(1-6)	2	3 1/2"C	4-500MCM & 1 # 2/0 GND
TIE FUSED AIR CKT BKR-SWGR SECT. T1-3	T1-3	TIE AIR CKT. BREAKER 75 E T1-3	4000A	4000A	X	X	X	X	X	--	X	4000A	--	--	--	4000A BUSWAY
MAIN FUSED AIR CKT BKR-SWGR SECT. N2	N2	MAIN AIR CKT. BREAKER 75 E B6 N2	4000A	4000A	X	X	X	X	X	--	--	5000A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-1	(R1) 208/120V TRANSF.-ELEC. CLOS. "E" 77th to 92nd FL	1600A	800A	X	X	X	X	X	X	X	1200A	F-SE75R-1	2	3 1/2"C	3-500MCM & 1 # 2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-2	(R2b) 480/277V ELEC. CLOS. "E" - 85th to 92nd FL	1600A	1600A	X	X	X	X	X	X	X	2500A	F-SE75R-2b	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-3	SPACE	800A	--	--	--	--	--	--	--	--	--	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-4	(R5) MOTOR CONTROL CENTER # ME75R	1600A	1200A	X	X	X	X	X	X	X	2000A	F-SE75R-5	3	3 1/2"C	3-500MCM & 1 # 3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-5	SPARE	1600A	1600A	X	X	X	X	X	X	X	2500A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-6	(R-8T) EMERG LIGHTING PANELS NORMAL SOURCE 59th to 92nd	800A	225A	X	X	X	X	X	--	X	350A	F-SE75R-BT	1	2 1/2"C	3 # 4/0 & 1 # 2 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-7	(R3) WATER SUPPLY PUMPS (2-75HP)	800A	400A	X	X	X	X	X	X	X	600A	F-SE75R-3	1	3 1/2"C	3-500MCM & 1 # 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2-8	SPARE	2000A	2000A	X	X	X	X	X	X	X	3000A	--	--	--	--
TIE FUSED AIR CKT BKR-SWGR SECT. T1-2	T1-2	TIE AIR CKT. BREAKER 75 E T1-2	4000A	4000A	X	X	X	X	X	--	X	4000A	--	--	--	4000A BUSWAY
MAIN FUSED AIR CKT BKR-SWGR SECT. N3	N3	MAIN AIR CKT. BREAKER 75 E B7 N3	4000A	4000A	X	X	X	X	X	--	--	5000A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 3	3-1	(R-17) EBASCO	1600A	1600A	X	X	X	X	X	X	X	2500A	F-SW75R-17	3	3"C	3-500MCM & 1#500MCM GND
LOW VOLTAGE FDR SWGR SECT. BUS 3	3-2	(L4b) 480/277V - ELEC. CLOS. "E" - 59th to 66th FL	1600A	1600A	X	X	X	X	X	X	X	2500A	F-SE75L-4b	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 3	3-3	SPARE	800A	800A	X	X	X	X	X	X	X	1200A	--	1	--	2#2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 3	3-4	FLUJ BANK	800A	800A	X	X	X	X	X	X	X	1200A	(3-4)	2	3 1/2"C	4-500MCM & 1 # 4/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 3	3-5	(L1) ELEVATOR DISTRIBUTION PANELS EL-875N-B & EL-876S-B	2000A	2000A	X	X	X	X	X	--	X	3000A	F-SE75L-1	5	3 1/2"C	3-500MCM & 1-250MCM GND
TIE FUSED AIR CKT BKR-SWGR SECT. T3-4	T3-4	TIE AIR CKT. BREAKER 75 E T3-4	4000A	4000A	X	X	X	X	X	--	X	4000A	--	--	--	4000A BUSWAY
MAIN FUSED AIR CKT BKR-SWGR SECT. N4	N4	MAIN AIR CKT. BREAKER 75 E B8 N4	4000A	4000A	X	X	X	X	X	--	--	5000A	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 4	4-1	(L3) 208/120V TRANSF. ELEC. CLOS. "E" - 59th to 74th FL	1600A	800A	X	X	X	X	X	X	X	1200A	F-SE75L-3	2	3 1/2"C	3-500MCM & 1 # 2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 4	4-2	(L4a) 480/277V - ELEC. CLOS. "E" - 67th to 74th FL	1600A	1600A	X	X	X	X	X	X	X	2500A	F-SE75L-4a	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 4	4-3	SPACE	800A	--	--	--	--	--	--	--	--	--	--	--	--	--
LOW VOLTAGE FDR SWGR SECT. BUS 4	4-4	(L7) MOTOR CONTROL CENTER #ME75L	1600A	1200A	X	X	X	X	X	X	X	2000A	F-SE75L-7	3	3 1/2"C	3-500MCM & 1#3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 4	4-5	(R16) EBASCO	1600A	800A	X	X	X	X	X	X	X	2500A	F-SE75R-16	2	3"C	3-500MCM & 1 # 4/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 4	4-6	SPARE	800A	800A	X	X	X	X	X	X	X	1200A	--	1	--	2#2/0 GND
TIE FUSED AIR CKT BKR-SWGR SECT. T2-4	T2-4	TIE AIR CKT. BREAKER 75 E T2-4	4000A	4000A	X	X	X	X	X	--	X	4000A	--	--	--	4000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS EL	--	L.V. FDR SWGR SECT. 75 E BUS EL (INCOMING FEEDER R-4)	--	--	--	--	--	--	--	--	--	--	F-SE75R-4	4	3"C	3-350MCM & 1 # 3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL-1	(R10) ELEVATOR DISTRIBUTION PANEL # EL-B-568	800A	300A	X	X	X	X	X	--	X	450R	F-SE75R-10	1	2 1/2"C	3-250MCM & 1 # 2" GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL-2	(R11) ELEVATOR DISTRIBUTION PANEL # EL-B-638	800A	400A	X	X	X	X	X	--	X	600A	F-SE75R-11	1	3 1/2"C	3-500MCM & 1 # 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL-3	(R12) ELEVATOR DISTRIBUTION PANEL # EL-B-698	800A	400A	X	X	X	X	X	--	X	600A	F-SE75R-12	1	3 1/2"C	3-500MCM & 1 # 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL-4	(R13) ELEVATOR DISTRIBUTION PANEL # EL-B-768	800A	600A	X	X	X	X	X	--	X	1000A	F-SE75R-13	2	3"C	3-350MCM & 1 # 2/0 GND

Engineering Department
Design Divisions

The World Trade Center
Electrical/HVAC
Upgrade Program

ELECTRICAL
SUBSTATION EQUIPMENT
TOWER ONE AND TWO

ELECTRICAL

TOWER TWO
SUBSTATION SS-75E
FRONT VIEW & SCHEDULES

No. Date Revision Approved

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FISCHER D. LEAHY JIM
Designed by Drawn by Checked by

Date FEB 10, 1995 Scale NONE

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